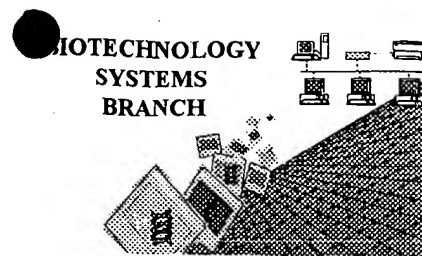


0570  
0423



## **RAW SEQUENCE LISTING** **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 091862,855E  
Source: OJPE  
Date Processed by STIC: 4/21/03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

**<http://www.uspto.gov/web/offices/pac/checker>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

# Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 091862,855E
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 _____ Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 _____ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 _____ Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 _____ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 _____ Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 _____ PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 _____ Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 _____ Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 _____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 ✓ Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: <u>Unknown</u> , <u>Artificial Sequence</u> , or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 _____ Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 _____ PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 _____ Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.	



OIPE

Does Not Comply  
Correction/Amendment Needed

## RAW SEQUENCE LISTING

DATE: 04/21/2003

PATENT APPLICATION: US/09/862,855E

TIME: 15:11:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\04212003\I862855E.raw

3 <110> APPLICANT: Cai, Hong  
 4 Keller, Richard  
 5 Werner, James  
 6 Goodwin, Peter  
 8 <120> TITLE OF INVENTION: RAPID HAPLOTYPING BY SINGLE MOLECULE DETECTION  
 10 <130> FILE REFERENCE: S-94,652  
 12 <140> CURRENT APPLICATION NUMBER: US 09/862,855E  
 13 <141> CURRENT FILING DATE: 2003-04-10  
 15 <160> NUMBER OF SEQ ID NOS: 21  
 17 <170> SOFTWARE: PatentIn version 3.1  
 19 <210> SEQ ID NO: 1  
 20 <211> LENGTH: 20  
 21 <212> TYPE: DNA  
 22 <213> ORGANISM: M13mp18 — invalid response, see error summary sheet item 10  
 24 <220> FEATURE:  
 25 <221> NAME/KEY: misc\_feature  
 28 <400> SEQUENCE: 1  
 29 gctcgaattc gtaatcatcg  
 32 <210> SEQ ID NO: 2  
 33 <211> LENGTH: 18  
 34 <212> TYPE: DNA  
 35 <213> ORGANISM: M13mp18  
 37 <220> FEATURE:  
 38 <221> NAME/KEY: misc\_feature  
 41 <400> SEQUENCE: 2  
 42 cagtccaag cttcgatg  
 45 <210> SEQ ID NO: 3  
 46 <211> LENGTH: 97  
 47 <212> TYPE: DNA  
 48 <213> ORGANISM: MLL  
 50 <220> FEATURE:  
 51 <221> NAME/KEY: misc\_feature  
 54 <400> SEQUENCE: 3  
 55 gaagttccca aaaccactcc tagtgagccc aagaaaaagc agcctccacc accaaaacaa  
 57 tatgatacat cttcaaaaac tcaactcaaat tctcagc  
 60 <210> SEQ ID NO: 4  
 61 <211> LENGTH: 27  
 62 <212> TYPE: DNA  
 63 <213> ORGANISM: MLL 3968L20  
 65 <220> FEATURE:  
 66 <221> NAME/KEY: misc\_feature  
 69 <400> SEQUENCE: 4  
 70 aaaaatttct tgggcttcac tagggag

20

↙  
 The type of errors shown exist throughout  
 the Sequence Listing. Please check subsequent  
 sequences for similar errors.

18

60

97

27

## RAW SEQUENCE LISTING

DATE: 04/21/2003

PATENT APPLICATION: US/09/862,855E

TIME: 15:11:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\04212003\I862855E.raw

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73 <210> SEQ ID NO: 5
74 <211> LENGTH: 29
75 <212> TYPE: DNA
76 <213> ORGANISM: AF4 4025L24
78 <220> FEATURE:
79 <221> NAME/KEY: misc_feature
82 <400> SEQUENCE: 5
83 aaaaaaattt gagtgagttt ttgaagatg 29
86 <210> SEQ ID NO: 6
87 <211> LENGTH: 12
88 <212> TYPE: DNA
89 <213> ORGANISM: MLLCy5P
91 <220> FEATURE:
92 <221> NAME/KEY: misc_feature
95 <400> SEQUENCE: 6
96 tttcttgggc tc 12
99 <210> SEQ ID NO: 7
100 <211> LENGTH: 12
101 <212> TYPE: DNA
102 <213> ORGANISM: AF4FAMP
104 <220> FEATURE:
105 <221> NAME/KEY: misc_feature
108 <400> SEQUENCE: 7
109 tttgagtgag tt 12
112 <210> SEQ ID NO: 8
113 <211> LENGTH: 12
114 <212> TYPE: DNA
115 <213> ORGANISM: MLLCy5L
117 <220> FEATURE:
118 <221> NAME/KEY: misc_feature
121 <400> SEQUENCE: 8
122 tttcttgggc tc 12
125 <210> SEQ ID NO: 9
126 <211> LENGTH: 12
127 <212> TYPE: DNA
128 <213> ORGANISM: AF4RGXL
130 <220> FEATURE:
131 <221> NAME/KEY: misc_feature
134 <400> SEQUENCE: 9
135 tttgagtgag tt 12
138 <210> SEQ ID NO: 10
139 <211> LENGTH: 32
140 <212> TYPE: DNA
141 <213> ORGANISM: A*02011/A/TT/GT
143 <220> FEATURE:
144 <221> NAME/KEY: misc_feature
147 <400> SEQUENCE: 10
148 tggcagctca gaccaccaag cacaagtggg ag 32
151 <210> SEQ ID NO: 11

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## RAW SEQUENCE LISTING

DATE: 04/21/2003

PATENT APPLICATION: US/09/862,855E

TIME: 15:11:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\04212003\I862855E.raw

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152 <211> LENGTH: 76
153 <212> TYPE: DNA
154 <213> ORGANISM: A*02011/A/TT/GT ✓
156 <220> FEATURE:
157 <221> NAME/KEY: misc_feature
160 <400> SEQUENCE: 11
161 gcggcccatg tggcggagca gttgagagcc tacctggagg gcacgtgcgt ggagtggctc 60
163 cgcagatacc tggaga 76
166 <210> SEQ ID NO: 12
167 <211> LENGTH: 32
168 <212> TYPE: DNA
169 <213> ORGANISM: A*0212/A/CA/GT ✓
171 <220> FEATURE:
172 <221> NAME/KEY: misc_feature
175 <400> SEQUENCE: 12
176 tggcagctca gaccaccaag cacaagtggg ag 32
179 <210> SEQ ID NO: 13
180 <211> LENGTH: 76
181 <212> TYPE: DNA
182 <213> ORGANISM: A*0212/A/CA/GT ✓
184 <220> FEATURE:
185 <221> NAME/KEY: misc_feature
188 <400> SEQUENCE: 13
189 gcggcccatg tggcggagca gcagagagcc tacctggagg gcacgtgcgt ggagtggctc 60
191 cgcagatacc tggaga 76
194 <210> SEQ ID NO: 14
195 <211> LENGTH: 32
196 <212> TYPE: DNA
197 <213> ORGANISM: A*0236/A/TT/CG ✓
199 <220> FEATURE:
200 <221> NAME/KEY: misc_feature
203 <400> SEQUENCE: 14
204 tggcagctca gaccaccaa gacaagtggg ag 32
207 <210> SEQ ID NO: 15
208 <211> LENGTH: 76
209 <212> TYPE: DNA
210 <213> ORGANISM: A*0236/A/TT/CG ✓
212 <220> FEATURE:
213 <221> NAME/KEY: misc_feature
216 <400> SEQUENCE: 15
217 gcggcccatg tggcggagca gttgagagcc tacctggagg gcacgtgcgt ggacgggctc 60
219 cgcagatacc tggaga 76
222 <210> SEQ ID NO: 16
223 <211> LENGTH: 32
224 <212> TYPE: DNA
225 <213> ORGANISM: A*2402101/G/CA/CG ✓
227 <220> FEATURE:
228 <221> NAME/KEY: misc_feature
231 <400> SEQUENCE: 16

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## RAW SEQUENCE LISTING

DATE: 04/21/2003

PATENT APPLICATION: US/09/862,855E

TIME: 15:11:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\04212003\I862855E.raw

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232 tggcagctca gaccacccaa ggcaagtggg ag 32
235 <210> SEQ ID NO: 17
236 <211> LENGTH: 76
237 <212> TYPE: DNA
238 <213> ORGANISM: A*2402101/G/CA/CG ✓
240 <220> FEATURE:
241 <221> NAME/KEY: misc_feature
244 <400> SEQUENCE: 17
245 gcggcccatg tggcggagca gcagagagcc tacctggagg gcacgtgcgt ggacgggctc 60
247 cgcagatacc tggaga 76
250 <210> SEQ ID NO: 18
251 <211> LENGTH: 32
252 <212> TYPE: DNA
253 <213> ORGANISM: A*24031/G/CA/GT ✓
255 <220> FEATURE:
256 <221> NAME/KEY: misc_feature
259 <400> SEQUENCE: 18
260 tggcagctca gaccacccaa ggcaagtggg ag 32
263 <210> SEQ ID NO: 19
264 <211> LENGTH: 76
265 <212> TYPE: DNA
266 <213> ORGANISM: A*24031/G/CA/GT ✓
268 <220> FEATURE:
269 <221> NAME/KEY: misc_feature
272 <400> SEQUENCE: 19
273 gcggcccatg tggcggagca gcagagagcc tacctggagg gcacgtgcgt ggagtggctc 60
275 cgcagatacc tggaga 76
278 <210> SEQ ID NO: 20
279 <211> LENGTH: 32
280 <212> TYPE: DNA
281 <213> ORGANISM: A*2413/G/TT/GT ✓
283 <220> FEATURE:
284 <221> NAME/KEY: misc_feature
287 <400> SEQUENCE: 20
288 tggcagctca gaccacccaa ggcaagtggg ag 32
291 <210> SEQ ID NO: 21
292 <211> LENGTH: 76
293 <212> TYPE: DNA
294 <213> ORGANISM: A*2413/G/TT/GT ✓
296 <220> FEATURE:
297 <221> NAME/KEY: misc_feature
300 <400> SEQUENCE: 21
301 gcggcccatg tggcggagca gttgagagcc tacctggagg gcacgtgcgt ggacgggctc 60
303 cgcagatacc tggaga 76

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**VERIFICATION SUMMARY**

DATE: 04/21/2003

PATENT APPLICATION: US/09/862,855E

TIME: 15:11:07

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\04212003\I862855E.raw